

IOT Smart Health Band

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Abstract: *The need for health care increases every day but technology helps us reach that demand. The advancement of technology gives health workers the tools they need to diagnose and treat patients. We are going to work on internet of things to know the patient condition with help of reading heart rate with the help of IOT smart health band inn this technology by detecting the pulse rate of the person. The band is going to inform the health of that person to his friend and family with the location traced by GPS system which is embedded in the watch and information is transfer through message system which is connected to smart health band.*

1. Introduction

In our day to day life a small part of your body or content can cover all information regarding your health. For example your heart bits, blood, X-rays, Urine etc. Now we are going to design smart health band which works on your heart bits and produces unique key and that key will be your ID. Using that ID if any harmful condition occurs to your body then the message has been send to your friends, family and your family doctor which will help you for your medical treatment. All the above system work on GPS which is inbuilt in your health band.

2. Smart Health Band

We all know that Apple Pay works with your fingerprint to verify payments, but another company has developed a wristband that uses a different part of the body: the human heart. It's called Nymi Band which has been discovered by university of Toronto, and it's a wristband that charts your "unique cardiac rhythm" to verify your identity. A biometric, in this sense, is a biological element that's used as a security measure.

3. Keywords

IOT , pic cheap , gps tracking , ecg

3.1.1. PIC

The status LED which shows the current GPS fix status. It is off until the PIC has synchronised with the data sequence, red when the GPS module has no position fix, orange when it has 2D fix and green for full 3D fix. The wake/sleep switch; push to start and push to stop. Hold down for 10 seconds when starting to reset the write position to the start of the SD card. The MMCX antenna connector with the external antenna connected. The GPS LED (showing green, barely visible behind the antenna connector). This lights green when the GPS is powered and flashes orange when there is data being transferred. The SD card LED (showing green). This lights green when the SD card is powered and flashes orange when there is data being transferred. On the right hand end of the box the end of the SD card can be seen poking out. At the bottom is the battery box which is almost exactly the same area as the base of the main box. The overall size of the complete unit is 75mm long, 50mm wide and 45 mm tall (27mm for the top box and 18mm for the 3xAA battery box).



3.1.2 GPS

GPS Kit is designed for outdoor activities such as: hiking, hunting, camping, skiing, cycling, geocaching, mountain biking, motorcycling, off-roading, fishing, and other romping in or out of the backcountry.

3.1.3 Pulse Rate

Heart rate is usually expressed as number of beats

per minute. It can be monitored by taking the pulse. The normal heart rate is anywhere in the range of 60 to 85 beats per minute; however, this may change with age, sex, and size.

Heart Rate Chart

	Age 18-25	26-35	36-45	46-55	56-65	65+
Athlete	49-55	49-54	50-56	50-57	51-56	50-55
Excellent	56-61	55-61	57-62	58-63	57-61	56-61
Good	62-65	62-65	63-66	64-67	62-67	62-65
Above Average	66-69	66-70	67-70	68-71	68-71	66-69
Average	70-73	71-74	71-75	72-76	72-75	70-73
Below Average	74-81	75-81	76-82	77-83	76-81	74-79
Poor	82+	82+	83+	84+	82+	80+



3.1.4 Nymi Band

This Band consist of sensors which counts the pulse rate in various conditions. For example heart rate in normal condition and any irrelevant condition.



Using sensor it counts the pulse of human body.

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5 References

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